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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/675,723

09/30/2003

Yehia El-Ibiary

03RE019

6359

7590

03/01/2005

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EXAMINER

IP, SHIK LUEN PAUL

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/675,723

Applicant(s)

EL-IBIARY, YEHA

Examiner

Paul Ip

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 and 46-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-40 and 50-54 is/are allowed.
- 6) ☒ Claim(s) 1-31, 41-44, 46-49 and 55-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/1/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Related Applications

1. The specification and the oath/declaration of this or the other application(s) fails to disclose the copending applications 10/201,007 and 10/201,073 as required in 37 CFR § 1.56. Correction is required in the next response.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on July 1, 2004 in compliances with the provision of 37 CFR § 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-44 and 46-67 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-35 of copending Application No. 10/201,073, and claims 1-37 of Application No. 10/201,007. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application

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since the referenced copending application and the instant application are claiming common subject matter, as follows:

Independent claim 1 in the present application recites:

A system for estimating parameters of a motor, the system comprising:
an electronic device that is operable to establish estimated values of a plurality of electrical parameters of an electric motor based on electrical input data obtained at a single load point of the electric motor.

Independent claim 1 of the '073 application recites:

An electric motor system, comprising:
an electronic device that is operable to establish estimated values of a plurality of electrical parameters of a motor based on electrical input data and stator resistance data.

Independent claim 1 of the '007 application recites:

An information system for an electric motor having a stator and a rotor, comprising:
a processing module that is operable to calculate an estimated value of a motor parameter that is variable during motor operating using motor electrical input data, rotor and stator electrical characteristic data, and rotor speed data.

Claim 1 of the present application recites a generic claim covering the same subject matters as recited in claim 1 of the '073 application and claim 1 of the '007 application limitations. Claims 1 of '073 and '007 applications are more specific claims for the "input data" and the application for the "information system". Although the claim language is not identical, it carries the same meaning of interpretation for the recited limitations as recited in the claims.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See MPEP § 804.

Claim Objections

5. Claims 46-49 are objected to because of the following informalities: Claims 46-49 are depending on a cancelled claim 45. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 41-44 and 46-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 41 recites a machine readable medium for analyzing an electric motor comprising a motor estimation module stored on the machine readable medium and adapted to estimate values of a plurality of electrical parameters of the electric motor based at least partially on measured motor parameters, wherein the motor estimation module is adapted to estimate an operating parameter of the electric motor based at least partially on the estimated values. Claim 41 recites a machine readable medium such as a computer program or any type of storage medium. However, the claim further recites a motor estimation module stored on the machine readable medium and adapted to estimated values of a plurality of electrical parameters of the electric motor based at least partially on measured motor parameters. The claim language does not make any sense in that it is not clear as how a readable medium such as a CD ROM or a storage device can be able to adapted to estimate values of a plurality of electrical parameters. It is not clear as how a readable medium can be able to estimate an operating parameter of the electric motor based at least partially on the estimated values. The machine readable medium and the motor estimation module recited in the claim cannot be functional incorporated together as recited in the claim.

Claims 46-49 are depending on claim 45. The examiner assumes claims 46-49 should be depending on claim 41. Therefore, claims 41-44 and claims 46-49 are rejected for the reason as set forth in the pervious paragraphs.

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Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. Claims 1-5, 8-12, 15-31, and 58-67 are rejected under 35 U.S.C. 102(e) as being anticipated by Mir et al (6,549,871).

With respect to claims 1-5, 8-12, 15-31, and 58-67, the claims recite the operating parameters of the motor torque, temperature, and efficiency. The patent to Mir et al discloses a method and system for estimating operating parameters of the motor based upon at least one of the torque value, the position value, the speed value, and the temperature value. See the abstract. The at least one of the value is obtained at a single load point of the electric motor and calculating an estimate of the current for a plurality of electrical parameters met the limitation as required in the claims.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 6, 7, and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mir et al (6,549,871) in view of Giuseppe (6,281,659).

With respect to claims 6, 7, and 55-57, the claims further recite the plurality of electrical parameters comprising rotor resistance and stator resistance. However, the patent to Giuseppe discloses a motor parameter estimation method comprising a rotor and stator resistances estimator 200 for estimating the rotor and stator resistances. Since Mir et al determine current estimate 200, and the determination of the current is in relationship with the rotor and stator resistances, it would have been obvious to one of ordinary skill in the art to provide Mir et al with the rotor and stator resistances estimator for determining the current parameter of the motor as taught or suggested by Giuseppe.

13. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Discenzo (6,295,510).

Claims 13 and 14 further recite a network communication for the motor apparatus. However, the patent to Discenzo discloses a modular machinery data collection and analysis system comprising a network communication system. Since Mir et al's current estimation system is used in a vehicle control system which is part of the vehicle network communication system, it would have been obvious to one of ordinary skill in the art to use Mir et al's system in a network communication system for monitoring the parameters of the motor as taught or suggested by Discenzo for the same operation environment.

Allowable Subject Matter

14. Claims 32-40 and 50-54 are allowed.

15. Claims 41-44 and 46-49 would be allowable subject to overcoming the 35 U.S.C. 112, second paragraph rejection, and correct the dependence of claims 46-49.

Claims 32-44 and 46-54 have been carefully considered in light of the specification and figure 10 of the invention. The references of the record fail to teach or suggest a control module 200 comprising the load point estimation modules as shown in figure 10 of the invention.

Response to Amendment

16. Applicant's arguments with respect to claims 1-31, and 55-67 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that the rejections under 35 U.S.C. 101 can only be supported if the claims in question and the cited claims necessarily and literally infringe upon each other. Applicant's argument is not persuasive. As pointed out in the previous paragraph, claim 1 of this application appears a boarder claim, generic claim, covering the similar limitations as recited in the copending applications 10/201,073 and 10/201,007. Although the claim language is not identical, the claims carry the similar meaning of limitations as recited in these copending applications. Further definition of the limitation "data" into "stator resistance data" and "rotor and stator electrical characteristics data, and rotor speed data" are not patentable distinct from "electrical input data obtained at a single load point of the electric motor". Therefore, a terminal disclaimer would be appropriate for the copending applications, or the invention of the copending applications can be merged into a single application for covering the generic limitations with different meaning of interpretations.

Applicant further vigorously, traverses the rejections under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements. Applicant's argument has been considered. The claims are written in such a board sense that the claimed limitation can be read on every motor measuring and testing design parameter. The claims are written in such a way that the claims recite an electronic device that is operable to establish estimated values of a plurality of electrical parameters of an electric motor based on electrical input data obtained at a single load point of the electric motor. See claim 1. The claims are not patentable distinct from the references of the record.

Citation of Pertinent References

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patents/publications to Harriman et al (6,674,260 or 2004/0195989 or 2003/0235409) disclose DC motor control systems for determining the temperature, efficiency, and load of the motor in order to control the efficiency of the DC motor.

The patent to Bowers III et al (5,680,025) discloses motor temperature, flux, speed, and load parameters for controlling the efficiency of the motor.

The patents to Discenzo (6,434,512 or 6,646,397) disclose modular data collection and analysis systems for motor parameters to determine the efficiency of the motor.

The patents to Canada et al (6,124,692 or 6,138,078 or 6,297,742 or 5,852,351) disclose motor parameters control systems for sensing motor parameters such as motor temperature, flux, speed, and vibration to control the motor efficiency at different load points.

The patents to Ohm et al (6,002,234) and Bidaud et al (5,548,199) disclose motor parameters monitoring systems for controlling the motor efficiency at different load points.

The patents to Henry et al (6,373,211 or 6,653,829), and Mir et al (6,694,287 or 2003/0046028 or 2003/0062868) disclose motor parameters control systems.

Communication Information

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Ip whose telephone number is (571)-272-1941. The examiner can normally be reached on Monday to Friday from 6:30 am to 3:00 pm Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin, can be reached on (571)-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Paul Ip". The signature is fluid and cursive, with the first name "Paul" and the last name "Ip" clearly distinguishable.

Paul Ip
Primary Examiner
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